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REMARKS

Claims 1-36 are currently pending in the subject application and are presently under consideration. Applicant's representative notes with appreciation the indication that claims 28-31 are allowable over the cited art to date. Independent claims 1, 16, 27, 35 and 36 have been amended to. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 14, 15, 32-34, and 36 Under 35 U.S.C. §102(e)

Claims 14, 15, 32-34, and 36 stand rejected under 35 U.S.C. §102(e) as being anticipated by Davis (US 6,061,605). Withdrawal of this rejection is respectfully requested for at least the following reasons. Davis does not disclose all limitations of the subject claims.

A single prior art reference anticipates a patent claim only if it expressly or inherently describes each and every limitation set forth in the patent claim. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

A. Independent Claim 14

The claimed invention generally relates to marking wafer products with barcodes for inventory control. Independent claim 14 recites a system for performing inventory control comprising (at least): an inventory, a barcode reader, a manufacturing device, a sorter, a feedback system, and an Electronic Data Interchange (EDI) systems adapted to transmit EDI data to EDI data destinations, the EDI data being generated by at least one of the barcode reader, the inventory, the sorter, the manufacturing device and the feedback system, the EDI data *including at least one of ordering information, defect information and delivery information*. Davis does not disclose such a novel feature.

Davis relates to a host controller (preferably) connected to a network including user access locations, which provides oversight and control access to production personnel, a database, or recipe server, and a support equipment management server that controls the

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environmental control system and the chemical supply source, in addition to coating material temperature controllers and pumps. The information contained in the recipe server can be stored in memory attached to the host controller. *See* col. 7, line 58-col. 8, line 4.

The Examiner asserts that the host controller taught by Davis is equivalent to the EDI systems of the claimed invention that transmit EDI data to one or more suppliers of the wafers. However, the cited passage in Davis (*i.e.*, col. 8, l. 5-col. 9 l. 9) is silent with respect to transmitting EDI data *including at least one of ordering information, defect information and delivery information*. The cited passage describes the identification of the wafers (col. 8, ll. 5-32), the acquisition and distribution of the proper recipe for the wafers (col. 8, ll. 33-48), the removal of the wafers from the cassette (col. 8, ll. 49-67), and the transport of the wafers to the proper process step (col. 9, ll. 1-9).

In neither the passage cited from col. 7, l. 58-col. 8, l. 4 nor the passage cited from col. 8, l. 5-col. 9, l. 9 does Davis disclose transmitting EDI data *including at least one of ordering information, defect information and delivery information*.

In view of at least the foregoing, it is readily apparent that Davis does not teach the identical invention in as complete detail as is disclosed in the subject claims. Accordingly, this rejection should be withdrawn.

B. Independent Claim 32

Independent claim 32 recites a method for performing inventory control, comprising generating Electronic Data Interchange (EDI) data associated with one or more barcodes on one or more wafers, the wafers being suitable for processing into integrated circuits, and transmitting the EDI data to one or more *suppliers of the wafers*. As an example, this novel feature of the subject claim allows for the automatic submission of orders for new wafers and/or the cancellation of a previous order to a supplier. The generated information relates to topics including, but not limited to, ordering wafers, canceling orders for wafers and reporting defect levels in wafer production runs. *See* p. 4, ll. 6-9. Accordingly, the term *suppliers of the wafers* refers to wafer supply sources, not a cassette containing wafers.

Davis relates to a host controller (preferably) connected to a network including user access locations, which provides oversight and control access to production personnel, a database, or recipe server, and a support equipment management server that controls the

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environmental control system and the chemical supply source, in addition to coating material temperature controllers and pumps. The information contained in the recipe server can be stored in memory attached to the host controller. *See* col. 7, line 58-col. 8, line 4.

The Examiner asserts that the host controller taught by Davis is equivalent to the EDI systems of the claimed invention that transmit EDI data to one or more suppliers of the wafers. However, the cited passage in Davis (*i.e.*, col. 8, l. 5-col. 9 l. 9) is silent with respect to transmitting EDI data to one or more *suppliers of the wafers*. The cited passage describes the identification of the wafers (col. 8, ll. 5-32), the acquisition and distribution of the proper recipe for the wafers (col. 8, ll. 33-48), the removal of the wafers from the cassette (col. 8, ll. 49-67), and the transport of the wafers to the proper process step (col. 9, ll. 1-9).

In neither the passage cited from col. 7, l. 58-col. 8, l. 4 nor the passage cited from col. 8, l. 5-col. 9, l. 9 does Davis disclose transmitting EDI data to one or more *suppliers of the wafers*.

In view of at least the foregoing, it is readily apparent that Davis does not teach the identical invention in as complete detail as is disclosed in the subject claims. Accordingly, this rejection should be withdrawn.

C. Independent Claim 36

The claimed invention relates to inventory control of semiconductor wafers through the use of barcodes. In particular, claims 36 recites a data packet containing feedback information from at least one of the one or more barcode readers, the one or more sorters and the one or more manufacturing devices, the one or more feedback systems adapted to generate control information that is fed forward to at least one of the one or more barcode readers, the one or more sorters and the one or more manufacturing devices. More particularly, for example, the invention as claimed allows a malfunctioning sorter to generate feedback information that initiates the re-routing of wafers to a sorter that is operating properly. Furthermore, the feedback information of the subject invention is *complex feedback information*. For example, the feedback information can include the processing capacity of a feedback generator, the status of the feedback generator, processing time and/or cost associated with the feedback generator, scheduled maintenance time for the feedback generator, defect rate of the feedback generator and defect rate of a wafer handled by the feedback generator. Additionally, *complex feed forward*

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information can be generated and distributed among downstream process components. Davis fails to disclose such novel features of the subject claims.

Davis relates to a support equipment manager server receives instructions from a host controller, based on predetermined handling and treatment instructions or recipe. The instructions sent by the host controller refer to 1) the chemicals to be used in the process, 2) the temperature of the chemicals, 3) the flow rate of the chemicals, and 4) the system air temperature and exhaust flow rate. The support manager server takes this information and distributes it to the chemical supply source, the fluid temperature controllers, the chemical pumps and the environmental control system, respectively. The support equipment manager server that monitors the status of the chemical and environmental systems for compliance with processing conditions and queues the host controller when the process conditions have been attained prior to processing and if attainment of the processing conditions is lost during processing. *See* col. 8, lines 33-52.

The Examiner contends that Davis teaches the limitations of independent claim 36. In Davis, the support equipment manager server operates within the confines of the instructions it receives from the host controller. Such instructions are predetermined and must be input by the host controller. Furthermore, the support equipment manager server only receives instruction from the host controller; it does not feed control information forward. In short, the support equipment manager server taught by Davis only monitors the status of the chemical and environmental systems during integrated circuit fabrication and stops the queue of wafers when the chemical and environmental systems are not operating properly. The support equipment manager server taught by Davis is does not generate *complex feedback or feed forward control information*, as disclosed in the subject claims.

Consequently, Davis fails to teach or suggest the claimed limitation of generating complex feedback information or control information that is fed forward to at least one of the one or more barcode readers, the one or more sorters and the one or more manufacturing devices. Thus, it is apparent that the cited reference does not disclose all limitations of independent claims 14 and 36.

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II. Rejection of Claims 1-13, 16-27, and 35 Under 35 U.S.C. §103(a)

Claims 1-13, 16-27, and 35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Davis in view of Kudo (US 6,896,196). Withdrawal of this rejection is respectfully requested for at least the following reasons. The independent claims in the subject claims have been amended to include allowable subject matter.

The Examiner indicates that the subject matter of claims 28-31 is allowable. Specifically, the Examiner states that the prior art lacks the teaching of a method of tracking integrated circuits comprising: marking a packaged integrated circuit fabricated from the wafer with one or more third barcodes, the third barcodes encoding information sufficient to identify the wafer from which the packaged integrated circuit was fabricated by relating the third barcodes to at least one of the first barcode, the wafer information stored on the data store, the one or more second barcodes and packaging information related to the packaging of the integrated circuit.

Accordingly, independent claims 1, 16, 27, and 35 have been amended to incorporate the allowable subject matter of independent claim 28. Applicants' representative respectfully requests that this rejection be withdrawn with respect to independent claims 1, 16, 27 and 35 (and the claims that depend there from) in view of the incorporation of allowable subject matter as indicated by the Examiner to the subject independent claims.

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CONCLUSION


The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [AMDP658US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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